9.0   CONFIGURATION MANAGEMENT

GCCS CM is a process for controlling the evolution of GCCS and allowing management to allocate limited resources of funds, time, and people to the most critical aspects of the system. CM must control all hardware, software, and supporting documentation. Control includes the identification and baseline control of all major system components, and strictly managing changes to GCCS baselines. The GCCS CCB structure must approve any changes to GCCS baselines. CM policy is contained in the *GCCS Configuration Management Policy*, which covers the four major aspects of CM (Identification, Change Control, Status Accounting, and Audits) and explains how they apply to GCCS. GCCS users should be conscious of CM because it permeates GCCS, in part because of the large software component, the flexibility of users to introduce changes to function in the COE, and the large distributed, worldwide structure of the system.

GCCS has established a structure of CCBs to manage change control. A CCB analyzes all technical and managerial aspects of a change and makes decisions on whether or not to implement the change. Several levels of CCBs are necessary because of the extent and complexity of GCCS. CCBs are used at the Program, Service, and site levels. A GCCS Review Board is used to adjudicate disputes between the GCCS CCB and the Service CCBs.

Management of CM relies in part on Configuration Status Accounting for recording and monitoring changes to GCCS controlled items. Data management, part of the status accounting, focuses on maintaining official records and correspondence. Configuration Audits are used as part of Product Assurance to confirm that GCCS meets the technical requirements and is accurately described in its documentation. The GCCS CM Manager, or GCCS Migration Director, may initiate audits at the local level.

CM monitors and tracks the GSPRs discussed in Section 7 for authorization when considering changes to product baselines. Problem Reports generated by GCCS developers and testers are also used for making changes to the product baseline software. Successful integration of GCCS items into the system depends heavily on good CM practices.

A master copy of government produced GCCS documents and software is available at and controlled by the DISA/Joint Interoperability and Engineering Organization (JIEO) Configuration Management Department Library and on SIPRNET. The library provides one copy of available documentation at the time of fielding. Each GCCS site is responsible for local reproduction if more copies are needed. Single, replacement copies are available from the library by calling: Commercial (703) 735-8732 or DSN 653-8732.

The GMC plays an important role in CM that involves GCCS users. The GMC provides CM functions to identify, control, and collect data on GCCS for accounting and auditing. This includes Network Configuration, System Hardware Configuration, System Software Configuration; and Naming, Addressing, and Inventory Control. The GMC acquires and maintains inventories of GCCS hardware including premise routers, communications servers, data and application servers, the AMHS, intelligent hubs, and other hardware. A software

configuration inventory is also maintained for the COE, mission applications, operational support applications, management support applications, and associated databases. The complete inventory will include name and addresses of POCs, trouble reports, performance reports, change management logs, tariffs, network topologies, service agreements and provision data as applicable.

CM is a complex process. Overarching GCCS CM documents are:

- *CJCSI (DRAFT) GCCS Configuration Management Policy*, 1 August 1995
- *GCCS CM Plan CMP 1-95*, 31 March 1995
- *GCCS CM Executive Summary*.

The GCCS CM Policy document imposes CM on all GCCS products and systems and describes DoD organizational CM responsibility. The GCCS CM Plan describes CM program management and the CM activities throughout a GCCS product life cycle. It is the "Who," "What," and "Why" of the GCCS CM program. The GCCS CM Executive Summary describes the conceptual framework for GCCS CM, the management structure for GCCS CM, and the CM responsibilities.

Other pertinent CM documents for GCCS are:

- MIL-STD-973, *Configuration Management*, 17 April 1992.

- DoD STD-2167A, *Defense System Software Development*, 29 February 1988.

- *Configuration Management Technical Requirements Handbook - Principles, Requirements and Criteria*, 28 February 1994.

- CJCSI 6721.01.1, *Global Command and Control Management Structure*, 13 February 1995.

- *Configuration Control Board Charter for GCCS* (not dated).

- *GCCS Configuration Management Technical Requirements Handbook*, 28 January 1994.

- *DISA Operational Support Facility Standard Operating Procedures (SOPs)*, 10 March 1995.